

Application No. 10/068,103
Amendment "F" dated November 19, 2004
Reply to Office Action mailed August 23, 2004

REMARKS

Initially, Applicants would like to thank the Examiner for the courtesies extended during the recent interview held on November 15, 2004. The claim amendments made by this paper are consistent with the proposals discussed during the interview.

The latest Office Action, mailed August 23, 2004, considered and rejected claims 2, 4-7, 9-31, 40-42, 44, and 46.¹

By this paper, claims 5, 9, 12, 15, 19, 21, 30, 40, and 46 have been amended, and claim 44 has been cancelled, such that claims 2, 4-7, 9-31, 40-42, and 46 now remain pending, of which claims 15, 19, 30, 40 and 46 are the only independent claims at issue.

Independent claims 15, 40 and 46 are directed to a dental device configured for curing light-curable compounds. Claim 19 is directed to a dental kit including the dental device as substantially defined in claim 15, and a holder for receiving the dental device. Claim 30 is directed to a dental system that includes a dental handpiece holding tray, a dental device as substantially defined in claim 15, and at least one additional dental handpiece.

As discussed during the interview, and as reflected above, claim 15, is generally directed to a dental device configured for curing light-curable compounds that includes an elongate body extending between a proximal end and a distal end, the proximal end of the body being tapered and comprising a configuration in size and shape that securely fits into a holding tray recess, a light source disposed at the distal end of the body, the light source having a fixed orientation that

¹ Claims 5-7, 9-14, and 21 were rejected under 35 U.S.C. § 112 second paragraph as being indefinite. Claims 5, 22-24, and 46 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Eibofner et al. (U.S. Patent No. 5,912,470). Claims 2, 4, 5, and 9-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Eibofner et al. in view of Kennedy et al. (U.S. Patent No. 5,634,711). Claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Eibofner et al. in view of Sullivan (U.S. Patent No. 5,975,895), and also over Eibofner et al. in view of Kennedy et al., and further in view of Sullivan. Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Eibofner et al. in view of Kennedy et al., and further in view of Verderber (U.S. Patent No. 5,457,611). Claims 15-18, 25-28, 40-42, and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey et al. in view of Kennedy et al. and Osterwalder et al. (U.S. Patent No. 6,102,696). Claims 19-21, 29 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey et al. in view of Doty (U.S. Patent No. 4,952,146). Claim 31 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bailey et al. in view of Doty and further in view of Runnells et al. (U.S. Patent No. 4,179,813).

Claims 5-7, and 9-14 were also rejected under 35 U.S.C. § 112 for indefiniteness because of claim dependency and perceived inconsistency in language. These rejections have been overcome by the amendments made to the claims to promote consistency in claim language and claim dependency, as discussed during the interview.

Although the prior art status of the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status of the cited art at any appropriate time, should it arise. Accordingly, any arguments and amendments made herein should not be construed as acquiescing to any prior art status of the cited art.

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is substantially normal to the body, and a power cord extending from the proximal end of the body for connecting the device to a remote power supply.

In the last action, claim 15 was rejected under 35 U.S.C. § 103(a) as being unpatentable over *Bailey et al.* (U.S. Patent No. 5,013,240 – hereinafter *Bailey*) in view of *Kennedy et al.* (U.S. Patent No. 5,634,711 – hereinafter *Kennedy*) and *Osterwalder et al.* (U.S. Patent No. 6,102,696 – hereinafter *Osterwalder*). The office action indicated that *Bailey* shows a portable dental apparatus including a tool holder 27 having a recess for receiving a light curing wand 30, which includes a light guide or rod at one end, and an optical cord 60, as shown in Figure 2. It was further stated that although *Bailey* does not show the body shape of light curing device 30, *Kennedy* teaches a light curing device 10 having an elongated body with a power cord 20 at a proximal end, as shown in Figure 1. It was then concluded that it would be obvious to one of ordinary skill in the art to modify *Bailey* to include a power cord as shown by *Kennedy*. It was also stated that although neither *Bailey* nor *Kennedy* show a dental curing light without a light guide, *Osterwalder* does show a dental curing light without a light guide.

However, as discussed during the interview, there would be no motivation to combine these references. In fact, the art actually teaches away from such a combination. Initially, there would be no motivation to combine the disclosed power cord in *Kennedy* with the light device 30 in *Bailey*, because the light device 30 in *Bailey* has no need for a power cord. In particular, the light device 30 or light curing wand 30 of *Bailey* does not appear to contain any light source that needs to be powered. Instead, it appears to merely comprise a conduit for emitting the light that is generated within the portable cart via optic cord 60.

It was also discussed during the interview how there would be no motivation to combine *Osterwalder* with these references in view of the power cord limitation. In fact, *Osterwalder* actually teaches away from using a power cord, a limitation recited in each of the independent claims. *Osterwalder* explicitly teaches away from the use of power cords by stating, that light curing devices using power cords “tend to be large and to be restrictive and unwieldy due to the wiring to an external electrical supply.” Accordingly, one of the recited purposes of *Osterwalder* is to provide a dental device that is “small, light weight and self-contained with no need for external wiring.” Col. 1 lines 21-23; 35-38; and 51-52.

As further discussed during the interview, the claims have been amended to clarify how the light curing device comprises an elongate body extending between a proximal and a distal

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end, the proximal end of the body being tapered and comprising a configuration in size and shape that securely fits into a recess of a holding tray, a light source disposed at the distal end of the body, and with a fixed orientation that is substantially normal to the body, the light source generating light suitable for curing light-curable compounds, the light source and distal end of the body together comprising means for being inserted and rotated within the mouth of a patient for direct application of the curing light within the patient's mouth, so as to eliminate any need for a light guide to direct the curing light, and a power cord extending from the proximal end of the body and operably connecting the dental device with a remotely located power supply.

Inasmuch as this unique combination of recited elements is neither taught nor disclosed in the art of record, either singly or in combination, Applicants respectfully submit that claim 15 should now be found allowable over the art of record.

Claim 19 should also be found allowable over the art of record for at least the same reasons as recited above in regard to claim 15. In particular, claim 19 is directed to a dental kit that includes a holder and a light curing device that is substantially similar to the dental device recited claim 15.

Claim 30 should also be found allowable over the art of record for at least the same reasons as recited above in regard to claims 15 and 19. In particular, claim 30 is directed to a dental system that includes a dental handpiece holding tray, a dental device that is substantially similar to the dental device recited claim 15 and at least one additional dental handpiece configured to be received within another recess of the dental handpiece holding tray.

Claim 40 is also directed to a dental device configured for curing light-curable compounds. The dental device recited in claim 40 is similar to the dental device recited in claim 15. However, unlike claim 15, claim 40 further specifies that the dental device includes an LED light source disposed at the distal end of the body, a heat sink disposed in contact with the LED light source so as to draw away and dissipate heat, and a transilluminating lens removably attached to the distal end of the dental device. As discussed during the interview, these elements in combination with the other recited elements (e.g., power cord, elongate body configured to fit securely into a recess of a holding tray, etc.) distinguish the claimed invention from the art of record.

Claim 46 is the last independent claim at issue. As discussed during the Interview, claim 46 is generally directed to a dental device substantially similar to the dental device recited in

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claim 15, only recited with broader functional language. Claim 46 was rejected only in view of Eibofner et al. However, as discussed during the interview, Eibofner fails to disclose or suggest the elements recited in the claim. In particular, Eibofner fails to disclose or suggest a dental device including means for defining a generally elongated body that extends substantially along a single central axis for enabling the dental device to be held and easily rotated into various positions when using the dental device for curing procedures in a patient's mouth or means disposed at the distal end of the dental device for generating and emitting radiant energy directly to a light-curable compound within a patient's mouth, in combination with the other recited claim elements.

Accordingly, for at least these reasons, claim 46 should also be found allowable over the art of record.

Inasmuch as all of the rejections of record have been addressed and overcome by the remarks made during the interview and as summarized herein, Applicants respectfully submit that all of the pending claims should now be found in condition for prompt allowance.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 22 day of November 2004.

Respectfully submitted,



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